

REMARKS

Claims 30-33, 38, 40-42, 46, 49-51 and 53-55 are currently pending in the present application. Favorable consideration and allowance of these claims are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 34-37, 39, 43-45, 47-48 and 52 are cancelled, rendering the rejections or objections to these claims moot.

The rejection of claims 30-33, 36-38 and 40-52 under 35 U.S.C. § 112, second paragraph, as indefinite, is respectfully traversed.

Claims 30 and 51 are amended to recite a first and a second node, thereby removing any lack of clarity resulting from the prior usage of the phrase “said node.” Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

The rejection of claims 30-33, 36, 38, 40, 41, 47-49 and 51 under 35 U.S.C. § 103(a) over Tomita et al. (JP 2001-214270), in view of Ono (JP 47-10730) is respectfully traversed.

Claims 30 and 51 are amended to clarify that the gas analyzer analyzes the concentration of the source gas in a mixed gas of the source gas and the diluting gas in between the first node and the second node. New independent claim 53 recites that the gas analyzer analyzes the concentration of the source gas on the downstream side of the second node.

Further, the claims clarify that the gas analyzer comprises a gas concentration detection unit supplying a probe signal into the mixed gas. The gas concentration detection unit produces a detection signal corresponding to the concentration of the source gas in the mixed gas based on the probe signal

passing through the mixed gas. The gas concentration detection unit further comprises a signal processing unit which corrects the detection signal and calculates an absolute concentration of source gas in the mixed gas. The signal processing unit calculates the absolute concentration of source gas in the mixed gas by multiplying, to a value I_r of the detection signal, a correction term $Ax(1/P)$, where A is a constant obtained by experiment, P is the pressure of the mixed gas which is obtained by a manometer. Support for these changes may be found in the original specification, for instance on page 37, line 3 - page 38, line 15.

Thus the present invention allows a calculation of the absolute concentration of the source gas. As a result, it is possible to reproduce the optimum deposition conditions with reliability even when a new film-formation process is restarted by supplying the source gas after termination of a previous film-formation process. This is discussed in the specification on page 39, lines 15-20.

None of the cited references teach or suggest an apparatus as presently claimed.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

The rejections of claims 43-46 under 35 U.S.C. § 103(a) over Tomita et al. and Ono and in view of Tokai et al. (US Patent Application Publication No. 2002/0014700 A1, as well as that of claims 42 and 49 over Tomita et al. and Ono and in view of Satake et al. (JP 2001-234348) and of claims 49 and 50 over Tomita et al. and Ono and in view of Holst et al. (US Patent Application Publication No. 2003/0056723 A1) and of claim 48 over Tomita et al. and Ono and in view of O'Neill et al. (JP 07-188932) are all respectfully traversed.

Each of these rejections relies on the proposed combination of Ono and Tokai as applied to claims 30-33, 36, 38, 40, 41, 47-49 and 51, however none of

the additional references cited in these rejections makes up for the failure of Ono and Tokai to teach or suggest each and every limitation of the presently pending claims. As such, these obviousness rejections cannot be properly maintained and reconsideration and withdrawal thereof are respectfully requested.

CONCLUSION

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket No. 010986.52578US).

Respectfully submitted,

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